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ABSTRACT

As the community college reaches the century mark, this report takes stock of what and where that diverse institution is today. The paper aims to depict the diversity of today's community college students and the myriad of programs and activities offered by these institutions. In addition, it outlines some of the challenges that must be faced as these institutions expand their agendas in response to the needs of our modern world. This paper contains the following sections: (1) "The Community College," which provides some basic data about the American community college enterprise; (2) "The Students," which looks at their background characteristics, educational aspirations and admissions test scores, educational risk, and college involvement; (3) "Community College Programs," which explores college transfer programs, occupational/technical programs, developmental education, community services, and support services; (4) "Transfer and Articulation," which examines the transfer function and articulation agreements; (5) "Examining the Impact and Effectiveness of the Community College"; and (6) "A Look Ahead," which summarizes data that demonstrate the demands for community college education and training in the future. The report includes a list of resources on community colleges and an appendix which contains Mercer County Community College's (New Jersey) General Guidelines for Dual Admissions Programs. (VWC)

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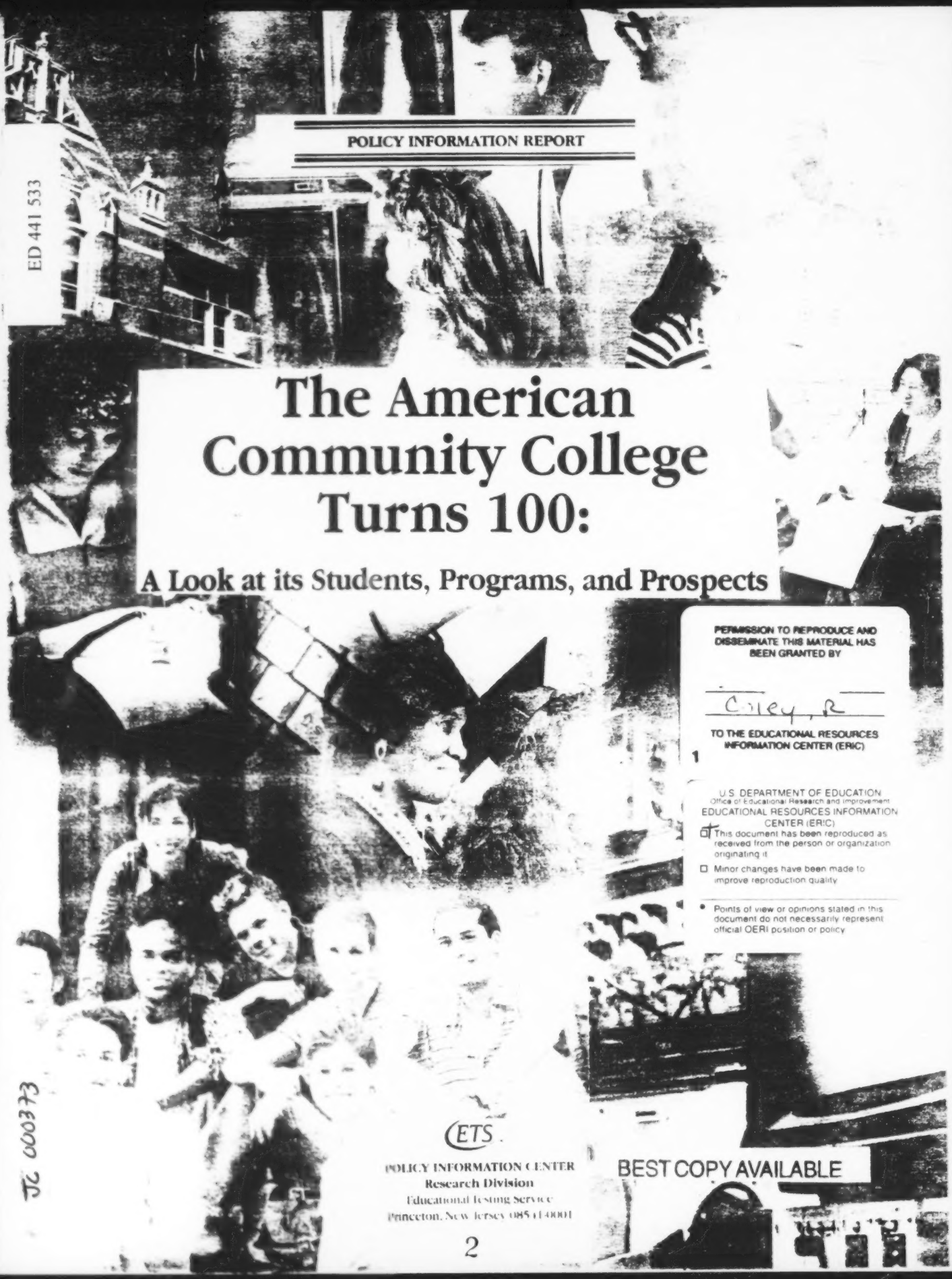
POLICY INFORMATION REPORT

The American Community College Turns 100:

A Look at its Students, Programs, and Prospects



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March 2000

Preface

As the 19th century drew to an end and Frederick Jackson Turner announced the closing of the American frontier, there were fears that the era of ever-expanding opportunity was also ending. That fear proved unjustified, for there were frontiers other than wide-open spaces and free land to pursue. One such frontier was the opportunity to develop the mind, and the turn of the century saw the beginning of a particularly American institution — the community college. Establishing a niche between high schools and four-year colleges, community colleges became ever more critical to the realization of opportunity for ever more people.

As the community college reaches the century mark, Richard Coley takes stock of what and where that diverse institution is today. *The American Community College Turns 100: A Look at its Students, Programs, and Prospects* aims to depict the diversity of today's community college students and the myriad of programs and activities offered by these institutions. In addition, he outlines some of the challenges that must be faced as these institutions expand their agendas in response to the needs of our modern world.

Paul E. Barton
Director
Policy Information Center

Acknowledgments

Much of the data in this report are drawn from the American Association of Community Colleges (AACC) and the National Center for Education Statistics (NCES) of the U.S. Department of Education. The report benefited from the reviews and comments of Norma Kent and Kent Phillippe of AACC; Paula Knepper of NCES; and Paul Barton, Donna Desrochers, and Harold Wenglinsky of Educational Testing Service. Any errors of fact or interpretation are those of the author, however. Carla Cooper provided desktop publishing, Amanda McBride was the editor, C. Susan Beym designed the cover, and Ken Caputo managed production.

Executive Summary

- Over the past 100 years, the community college system, comprised of approximately 1,600 institutions, has become a key part of the higher education system, enrolling 5.5 million students in credit courses and employing almost 300,000 faculty members. Another 5 million students participate in some kind of noncredit activity at their local community colleges, often related to workforce training.

- Community college students are older and more racially and ethnically diverse than students in four-year institutions. They are also more likely to exhibit a range of characteristics that place them at risk of not meeting their educational goals.

- Community college programs include associate degree and transfer programs, worker training and retraining programs, occupational/technical programs, developmental programs, community services, economic development activities, and support services.

- Community colleges conferred more than 450,000 associate degrees in 1997, including nearly 170,000 degrees in liberal arts, humanities, and general studies.

- Community colleges offer programs as diverse as early childhood education, office management, laser optics, medical and computer technologies, auto body repair, and fire science. Programs in technology fields and health care are "hot" on today's campuses, and their graduates command substantial starting salaries.

- Somewhere between one-quarter and one-half of community college students who planned on attaining a bachelor's degree or higher eventually transfer to a four-year college. For those going to school full-time the percentage who transferred was 50 percent.

- Community colleges can provide a considerably less expensive way for students to complete their first two years of college without hurting their academic development or competitiveness in the job market.

- Demographic trends, the [illegible]ional demands of a post-industrial workforce, and the widely recognized relationship between education and income will likely increase the demand for community college services in the future.

- While its place in the history of American higher education is assured, the future success of the community college system will depend on how well it adapts to the changing needs of society. If history is any indication, community colleges will adapt and thrive.

Introduction

During its 100-year existence, the community college system has established itself as a key part of the American higher education system. Its place in the history of higher education in the 20th century seems assured:

> *The invention of the two-year community college is the greatest innovation of twentieth-century American higher education. Such, in any case, is the case made recently by Clark Kerr, a key architect of the current system of higher education as well as one of its most perceptible students. Yet when the first public junior college opened its doors in Joliet, Illinois, in 1901, there were grave doubts about whether this odd hybrid would survive. Over time, however, it became apparent that this peculiarly American invention was destined to do far more than survive; by mid century it had become an integral feature of the American educational landscape.*[1]

As the 20th century draws to a close, a number of recent developments are casting increased light and heat on community colleges and their role. First, there is a push for education beyond high school and more financial support for it. Federal legislation in 1997 established the HOPE Scholarship and Lifetime Learning Credits, which opens the doors of college to a new generation, with the largest investment in higher education since the G.I. Bill was established 50 years ago. The legislation recognizes that our changing economy demands that people have opportunities to enhance their skills throughout their working lives. When fully phased in, 13 million students are expected to benefit each year. Community colleges will provide much of the education to these clients.

Community colleges are also facing increased pressure to educate students who come to them unprepared academically. In addition to having "open" admissions policies, community colleges may be increasingly burdened with providing remedial programs that once were provided by four-year institutions.

Two large higher education systems have recently established policies curtailing remedial services to students who don't meet basic skill standards. The two systems — California State University and the City University of New York (CUNY) — are redirecting these students to community colleges. Critics of such policies, like Henry Levin of Teachers College, warn that such actions can "ghettoize" community colleges.[2]

In addition to this general education or collegiate function, community colleges are expected to provide a wide variety of services, responding to the needs of their communities and the businesses that operate within them. These functions include vocational/occupational education and training, contract education and other economic development activities, and community service. This expanded role, while demonstrating flexibility in responding to community needs, has also generated criticism about conflicts that arise from these multiple and sometimes conflicting roles.

Such criticism of the American community college is not new. In their classic textbook on the American community college, Arthur Cohen and Florence Brawer characterize the gist of the criticism as follows:

> *When the community college is examined by outsiders, the commentary usually takes the form of criticizing the institution in its social role or the institution as a school. In the first of these criticisms, the college is often seen in a negative light. It is an agent of capitalism, training workers to fit business and industry; it is a tool of the upper classes, designed to keep the poor in their place by denying them access to the baccalaureate and, concomitantly, to higher-status positions in society. When it is criticized as a school, questions are raised about its success in teaching: do these colleges really teach the basic skills that the lower schools failed to impart? Can they*

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1 Steven Brint and Jerome Karabel, *The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America*, New York: Oxford University Press, Inc., 1989.

2 *Education Week*, December 8, 1999.

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provide a foundation for higher learning? Here, too, the answers are usually negative: since the community colleges pass few of their students through to the senior institutions, they are said to have failed the test.[3]

The success or failure of such a complex institution is not easily determined. And this report will make no such attempt.

This report will, however, assemble data and other information that will describe the community college system as it concludes its first hundred years. The report presents information about the community college system, its students and faculty, its programs, its costs, its effectiveness, its role in the community and in higher education, and its likely future niche in America's system of higher education.

Since the community college enterprise is so large and diverse, this report aims to provide more breadth than depth on these issues. For those interested in more in-depth information about community colleges, additional resources are noted at the end of the report.

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[3] Arthur M. Cohen and Florence B. Brawer, *The American Community College*, Third Edition, San Francisco: Jossey-Bass Publishers, 1996.

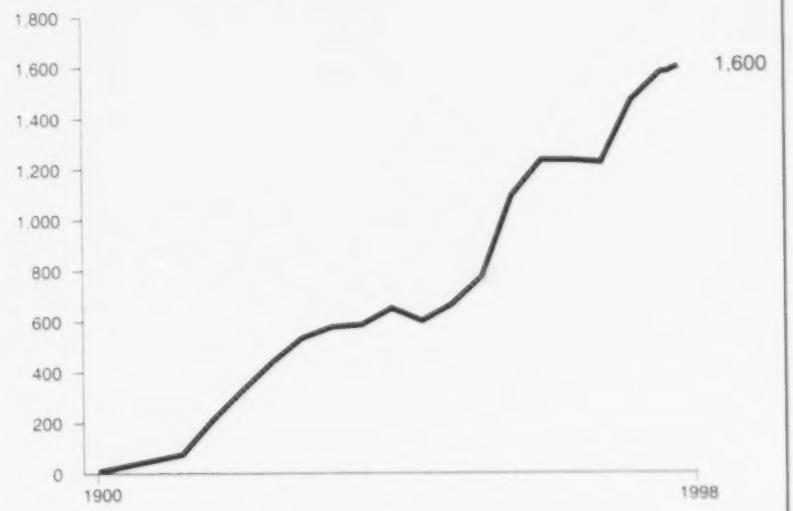
The Community College

This section of the report provides some basic data about the American community college enterprise.[4] Joliet Junior College, opened in 1901, is thought to be the first continuously operating public community college in the United States. As shown in Figure 1, by 1998 there were 1,600 community colleges across all 50 states (including branch campuses). Of the 1,132 community colleges operating in 1998 (not including branch campuses), 968 were public, 137 were independent, and 27 were tribal.[5] This tremendous expansion was fueled by the push for universal education, the GI Bill, the baby boom, the civil rights movement, the nation's needs for worker training, and a robust national economy.

The number of community colleges within a state varies from a handful to more than 100. And while no two are exactly alike, they share the goals of access and service. The American Association of Community Colleges (AACC) provides this sketch of two different state systems:

> *North Carolina's and Vermont's community college systems bring higher education to within a 30-minute commute of all their citizens, an access goal many states share, and they exemplify how different practices can accomplish the same end. North Carolina has a 58-campus system, which 800,000 people used in 1997–98. Seventy percent of those students took noncredit programs, mostly in workforce training. The Community College of Vermont (CCV), with much less support than North Carolina from its state legislature, owns no real estate and has no full-time faculty. CCV rents classroom space in 12 population centers throughout the rural state and is expanding its distance learning systems. About half of its 4,500 students take general liberal arts*

Figure 1
Number of Community Colleges, 1900 to 1998

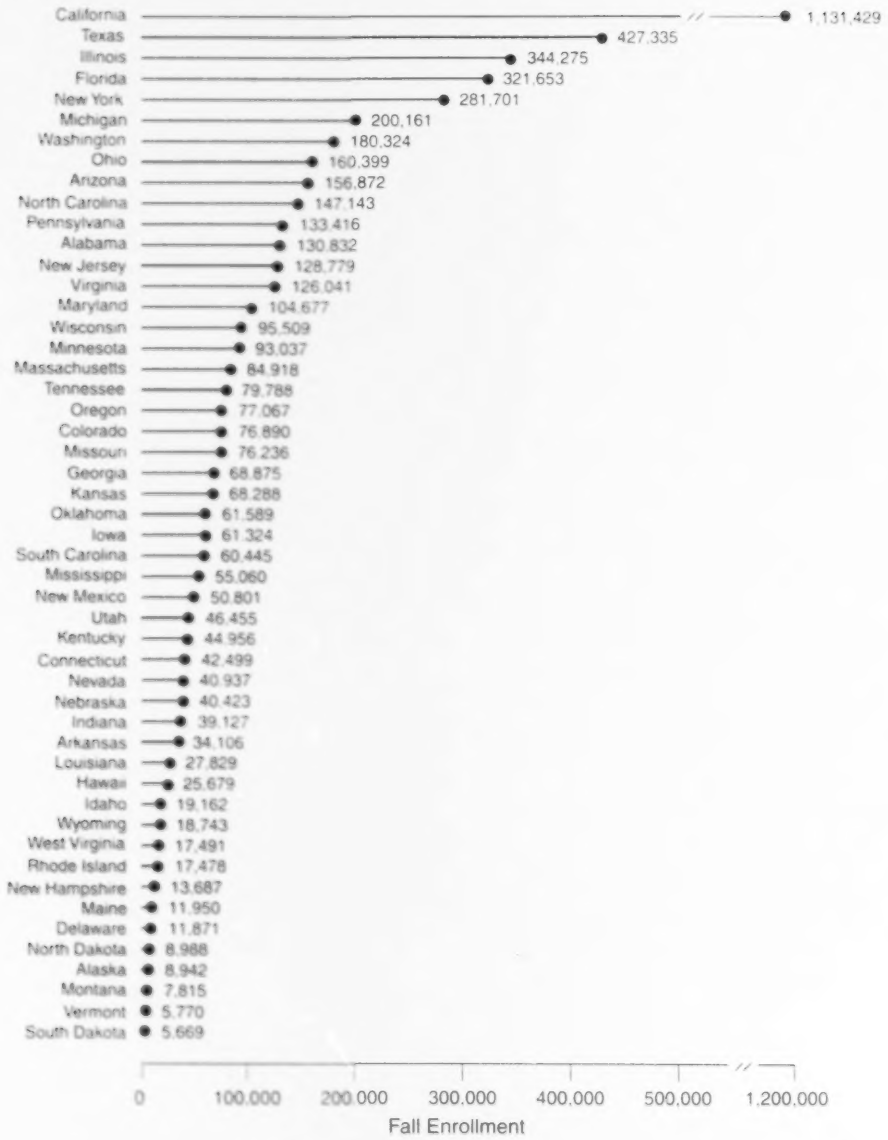


Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

[4] Much of the data in this section and in other sections of the report are drawn from two publications from the American Association of Community Colleges. These are *National Profile of Community Colleges: Trends and Statistics*, 3d edition, and *The Community College Story*, Second edition. Readers who would like to obtain more detail on a variety of topics related to community colleges should refer to these more comprehensive reports.

[5] Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

Figure 2
Community College Fall Enrollment, by State, 1996



Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

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courses with the intent of transferring to baccalaureate degree programs.[6]

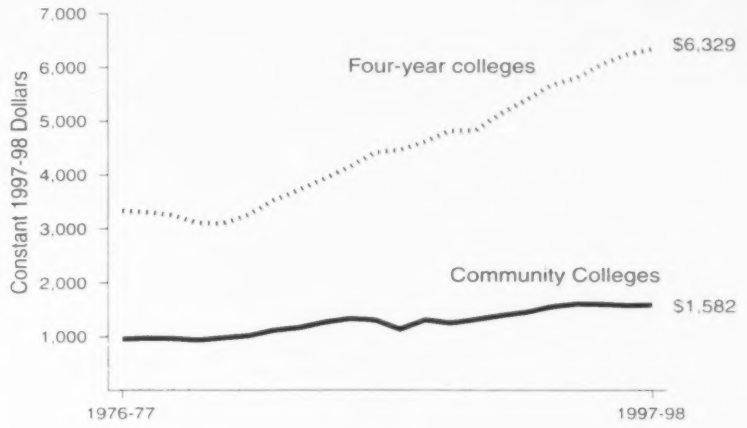
Figure 2 shows the number of each state's population, age 18 or older, enrolled for credit in community colleges in the fall of 1996. More than 1 million students were enrolled for credit in California's community colleges during that semester, 4.9 percent of the state's population in that age group. Only Wyoming, at 5.4 percent, enrolled a larger proportion. Nationally, 2.8 percent of this population were enrolled in community colleges that semester. Even community colleges in small and less populous states enroll thousands of students.

Community colleges provide a substantially less expensive alternative to four-year colleges for students and parents. In 1997–98, average tuition and fees at community colleges was $1,582. The comparable figure at four-year colleges was $6,329. Trends in these costs, presented in constant 1997–98 dollars, are shown in Figure 3. The gap between the two lines is widening. The increase in tuition and fees at community colleges between 1977 and 1998 was 67 percent, compared to 90 percent at four-year institutions.

Community colleges receive most of their revenue from federal, state, and local tax sources. On average, nationally, community colleges receive approximately 39 percent of their funds from state taxes, 20 percent from tuition and fees, 18 percent from local government, 13 percent from the federal government, and 10 percent from other sources.[7]

The community college system employs more than 104,000 full-time faculty and about 190,000 part-time faculty. Most full-time faculty hold a master's degree and about 16 percent hold a doctorate. In keeping with the community college mission, community college faculty members' primary responsibility is teaching. Most part-time faculty teach only one course per term, whereas full-time faculty typically teach five courses.[8]

Figure 3
Average Tuition and Fees for Community Colleges and Four-Year Colleges, in Constant 1997–98 Dollars



Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

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6 Phillippe and Patton, 2000.

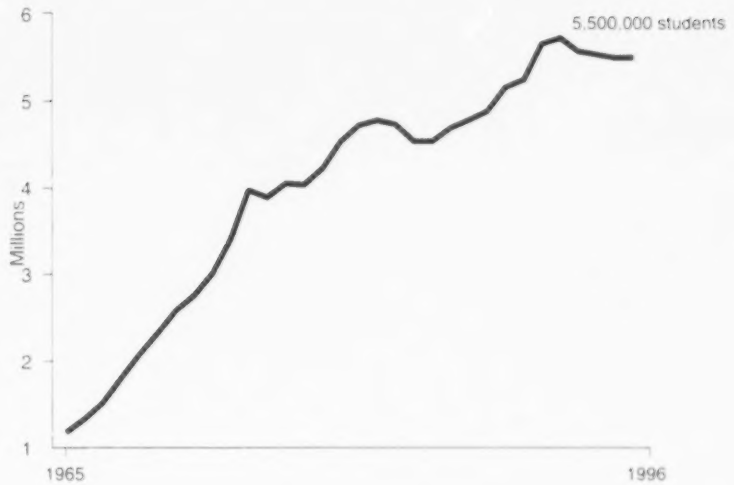
7 George B. Vaughan, *The Community College Story*, Second Edition, American Association of Community Colleges, Washington, D.C.: Community College Press, 2000.

8 Vaughan, 2000.

The Students

In 1997, community colleges enrolled about 5.5 million students. In 1965, that number was about 1.2 million. This growth is shown in Figure 4. It is important to emphasize that these enrollment data pertain only to students enrolled at community colleges for credit. The American Association of Community Colleges (AACC) estimates that more than 5 million students each year participate in some form of noncredit activity at community colleges. Because of definitional and other differences in how students are counted, no accurate national data exist on noncredit enrollment. However, some reliable noncredit data are available for some states and give some indication of the magnitude of noncredit enrollment.

Figure 4
Community College Enrollment, 1965 to 1996*



Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

*Does not include noncredit enrollment.

- North Carolina and Wisconsin reported that about 70 percent of enrollment was in noncredit activity.
- California and Florida reported that 14 and 11 percent of enrollment, respectively, was noncredit.[9]

As will be discussed later in this report in the section on community college programs, students enroll in community colleges for a variety of reasons, many related to workforce training. Community colleges play an active role in the short-term training that "welfare-to-work" individuals need for entering the workforce. In addition, these schools serve many adults returning for education or training beyond the bachelor's degree; by some estimates 8 to 12 percent of community college students have a bachelor's degree or beyond.[10]

Community colleges also provide an educational opportunity for individuals who traditionally have not been well-served by the higher education system. Arthur Cohen and Florence Brawer provide this description of such students:

> *. . . those who could not afford the tuition; who could not take the time to attend a college on a full-time basis; whose ethnic background had constrained them from participating; who had inadequate preparation in the lower schools; whose educational progress had been interrupted by some temporary condition; who had*

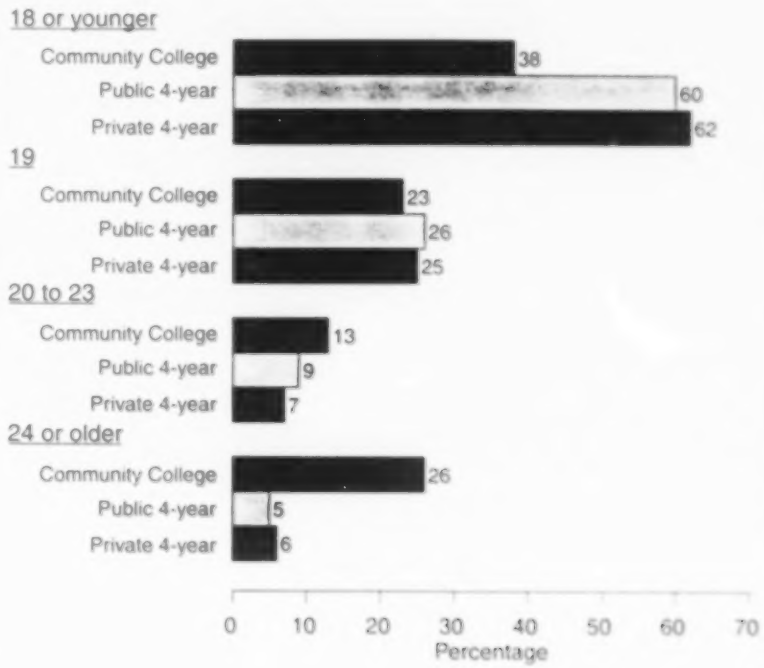
[9] Phillippe and Patton, 2000.

[10] Personal communication with Kent Phillippe, AACC, December 10, 1999.

become obsolete in their jobs or who had never been trained to work at any job; who needed a connection to obtain a job; who were confined in prisons, had physical disabilities, or otherwise unable to attend classes on a campus...[11]

This section of the report compares the background characteristics of *first-time beginning students* who were enrolled in U.S. postsecondary institutions in the 1995–96 school year. It describes the differences between public two-year college entrants (hereafter referred to as community college students), public four-year college entrants, and private four-year college entrants. Therefore, it is important to note that these comparisons do not include the many community college students who have had previous postsecondary experience.

Figure 5
Percentage Distribution of 1995–96 Beginning Postsecondary Students, by Age and Sector of First Institution Attended



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

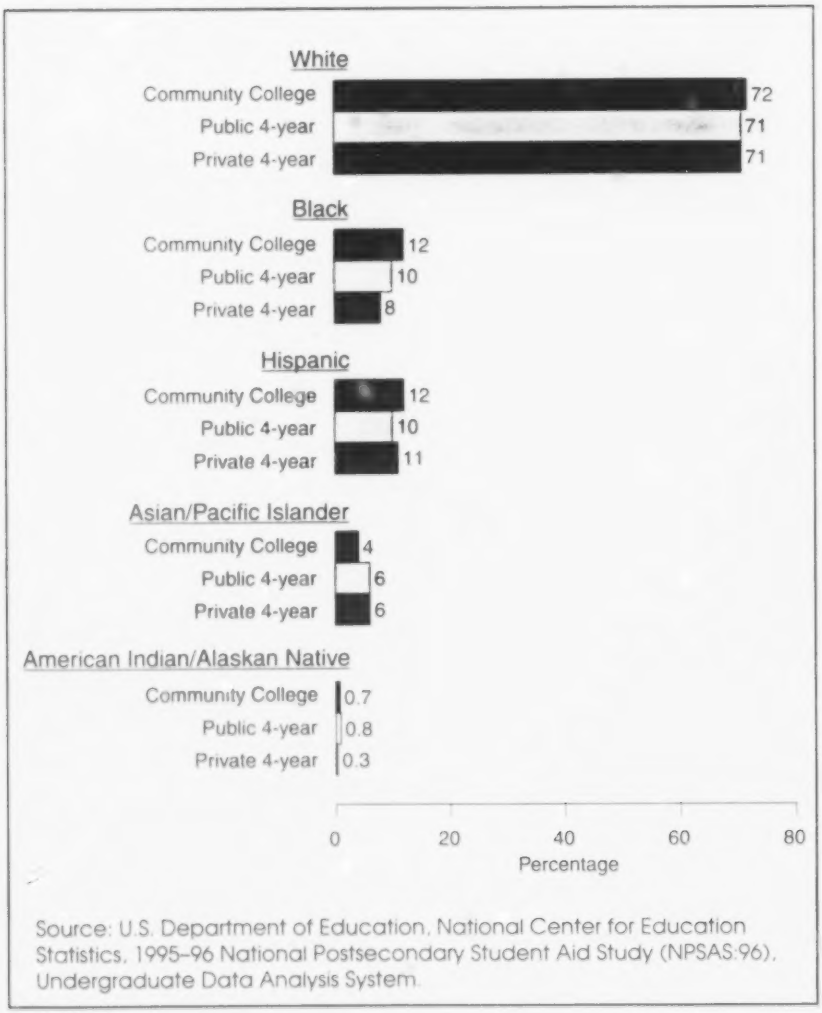
Background Characteristics

Compared to students in four-year colleges, students who begin in community colleges tend to be older and more racially and ethnically diverse. Figure 5 compares the age distribution of community college students to that of four-year college students. The largest differences can be seen at the ends of the distribution. While about 60 percent of four-year college students are 18 years old or younger, only 38 percent of community college students are in that age bracket. And while 26 percent of community college students are 24 years old or older, only about 5 percent of four-year college students are that old.

The data also show that minority students are somewhat more likely than non-Hispanic White students to enroll in community colleges rather than four-year schools. Enrollment data by race/ethnicity are shown in Figure 6. While Black students make up 12 percent of the community college student population, they comprise only 8 to 10 percent of four-year college enrollment.

[11] Cohen and Brawer, 1996.

Figure 6
Percentage Distribution of 1995–96 Beginning Postsecondary Students, by Race/Ethnicity and Sector of First Institution Attended



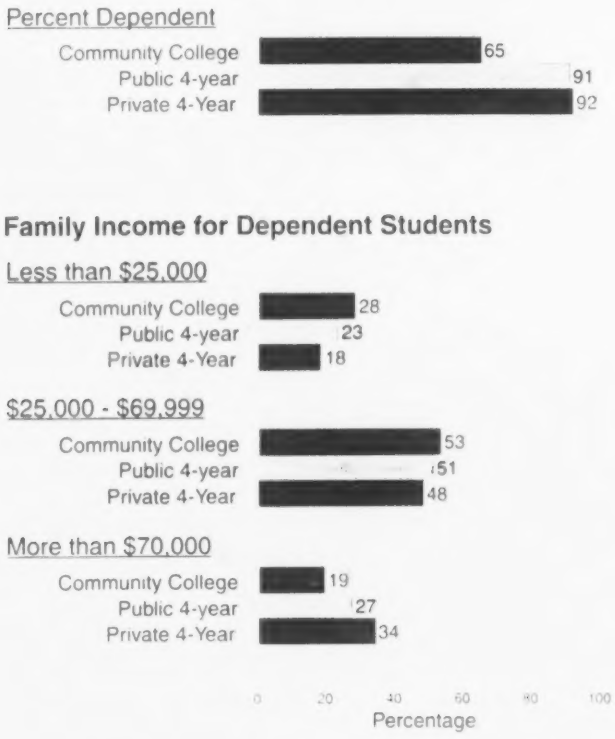
Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

In urban areas, where the population tends to be heavily minority, the community college population tends to mirror that composition. In these schools, minority enrollment often exceeds 50 percent. Likewise, most of the students in tribal colleges are Native American.

Community college entrants were less likely than their counterparts at four-year schools to be dependent on their parents for support, as determined by federal aid definitions. As shown in Figure 7, while about 90 percent of four-year college students depended on their parents for support, only 65 percent of community college entrants did so. This difference reflects the tendency for community college students to be older than students attending four-year institutions.

Figure 7 also shows family income data for the three groups of dependent college entrants. Dependent community college entrants, along with those at four-year public colleges, were more likely to have family incomes below $25,000 a year than dependent students entering four-year *private* schools. At the top end of the income scale, only 19 percent of first-time dependent community college entrants had family incomes of over $70,000,

Figure 7
Percentage Distribution of 1995–96 Beginning Postsecondary Students, by Dependency Status and Family Income for Dependent Students



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

compared to 34 percent of dependent four-year *private* college entrants.

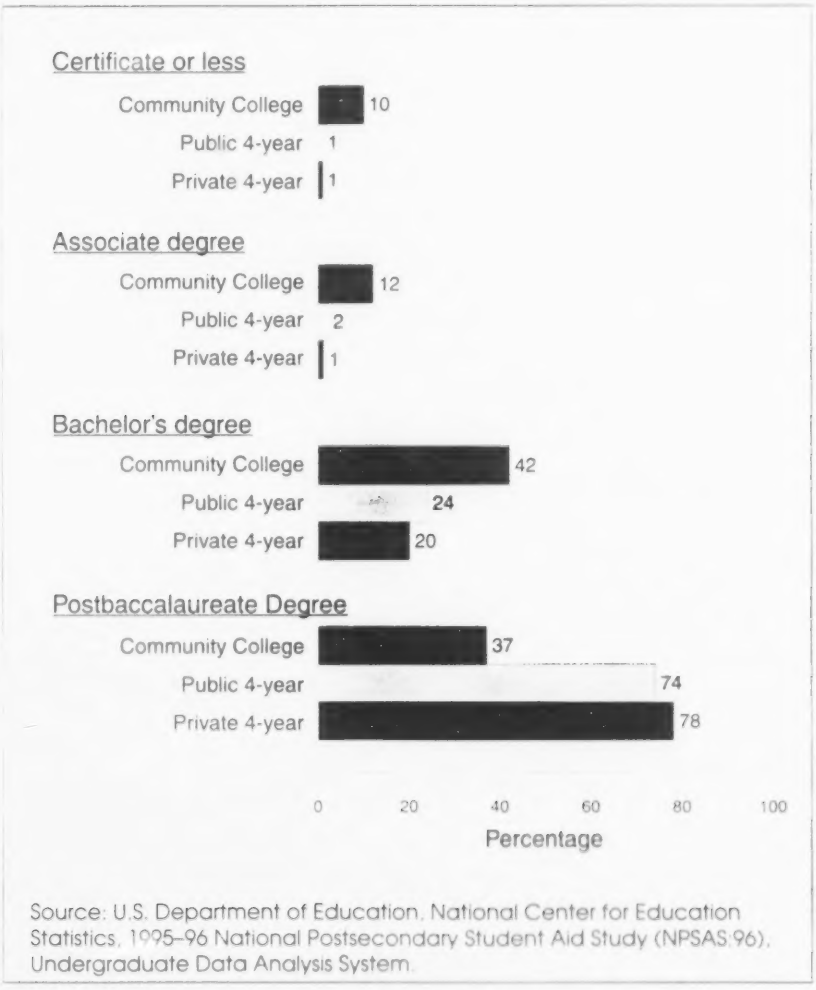
Students beginning their postsecondary education at community colleges were also more likely than other college students to be first-generation college students (neither parent had any postsecondary education). About half of community college students were first-generation, compared to 35 and 30 percent, respectively, in public and private four-year schools. And while 32 percent of students in private four-year schools had at least one parent with a postbaccalaureate degree, only 9 percent of community college students had a parent with that much education.

Educational Aspirations and Admission Test Scores

At the time of enrollment, 10 percent of community college entrants planned to earn a certificate or less, 12 percent aimed for an associate degree, 42 percent planned to obtain a bachelor's degree, and 37 percent aspired to a postbaccalaureate degree. In general, these aspirations were more modest than the educational aspirations of students entering four-year institutions.

Community college students were less likely to plan to achieve a postbaccalaureate degree. Still, 79 percent of community college students planned to obtain a

Figure 8
Percentage Distribution of 1995–96 Beginning Postsecondary Students, by Highest Level of Education Planned, by Sector of First Institution Attended



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

bachelor's degree or higher. These data are shown in Figure 8. It should be pointed out, however, that some researchers have identified some problems inherent in comparing the educational plans of community college students and four-year college students. For example, Ernest Pascarella offers the possibility that community college students who indicate their intention of obtaining a bachelor's degree may be actually somewhat unsure of their educational goals and have no way of finding out what path they want to take except by trying out postsecondary education in a low-cost setting.[12]

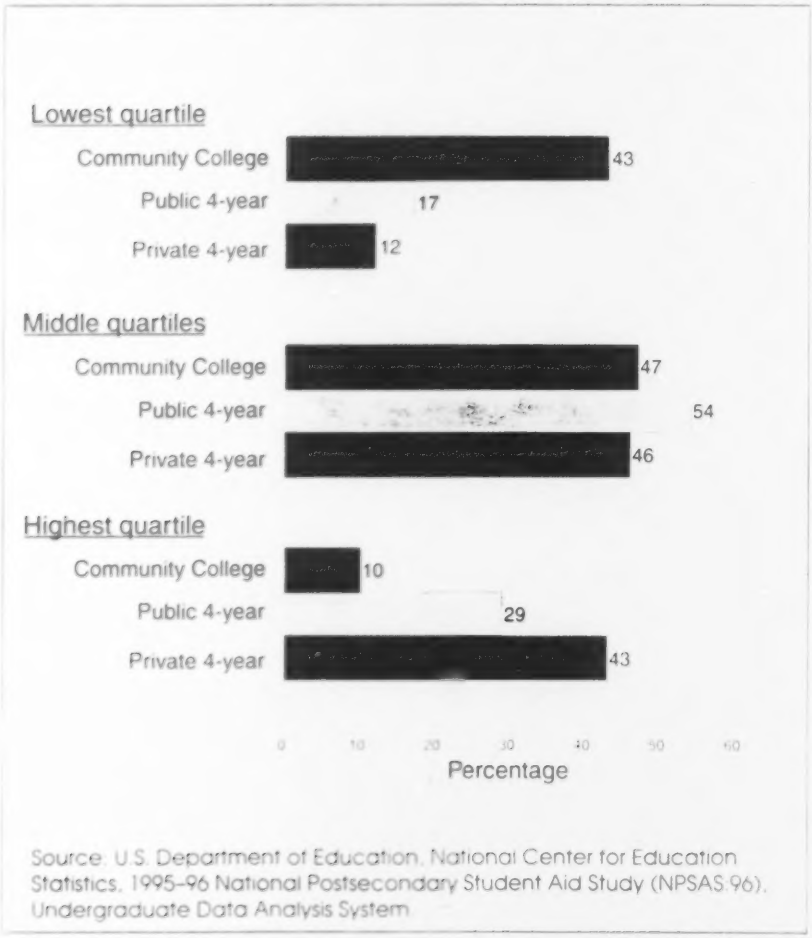
Nearly 90 percent of entrants to four-year institutions took either the SAT® or ACT. Only 40 percent of community college entrants did so. Furthermore, community college students were more likely than the other students to score in the bottom quartile on these tests (see Figure 9). Forty-three percent of students entering private four-year colleges scored at the highest admissions test quartile, compared to 29 percent of public four-year students and 10 percent of community college students.

Educational Risk

Research has identified seven factors that put students at risk of not attaining a degree, and found

[12] Ernest T. Pascarella, "New Studies Track Community College Effects on Students," *Community College Journal*, 69 (6), June/July 1999.

Figure 9
Percentage Distribution of 1995–96 Beginning Postsecondary Students, by Actual or Derived SAT Combined Score, by Sector of First Institution Attended



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

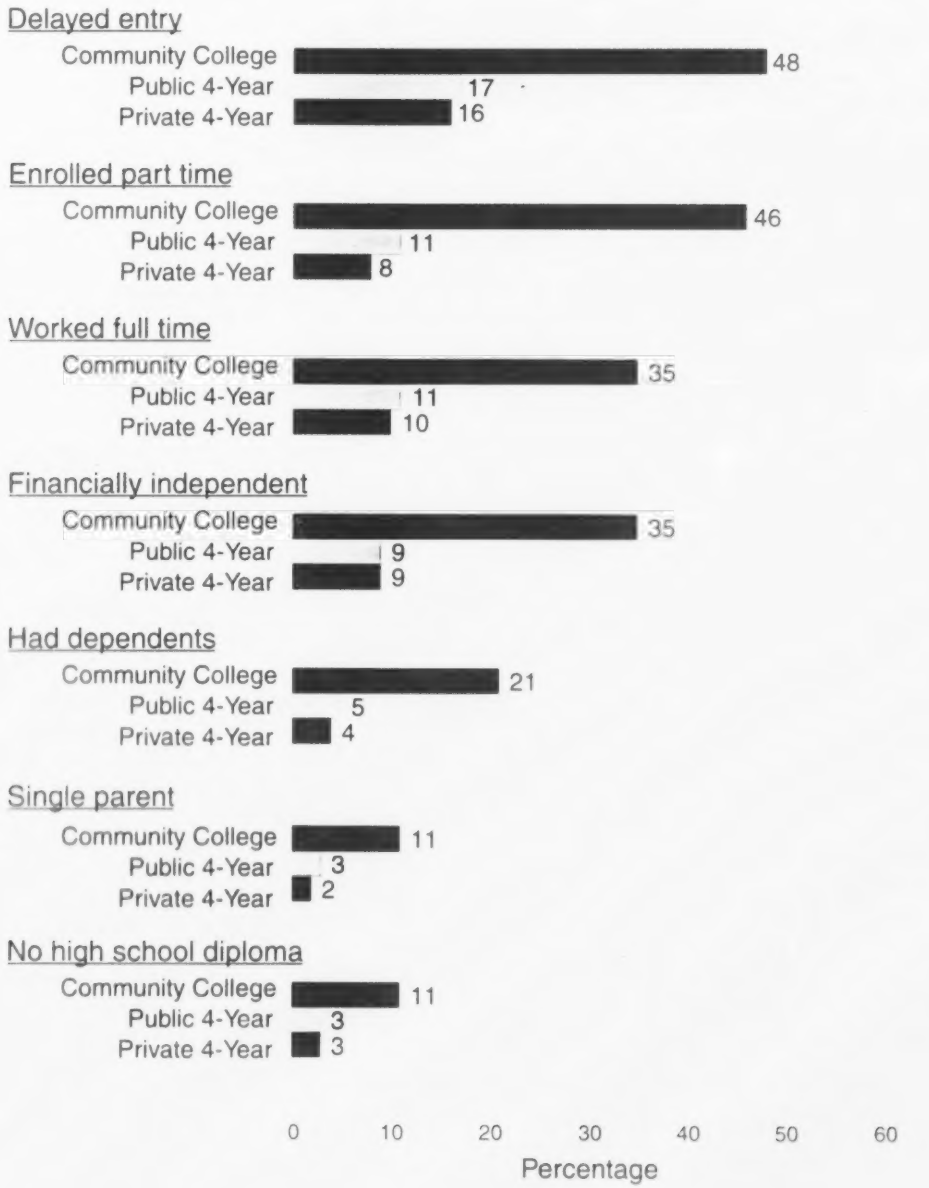
that three-fourths of undergraduates were characterized by at least one of these factors and that the highest proportions of at-risk students were attending two-year and less-than-two-year institutions. These risk factors, along with the proportions of students with these risk factors that were attending the three major higher education sectors, are shown in Figure 10.

Students entering community colleges were more likely than their peers at four-year institutions to have each of the seven factors. In fact, 24 percent of students entering community colleges had four or more of these factors. The National Center for Education Statistics calls these students "highly nontraditional" students. Only about 4 percent of four-year students showed this level of risk. Almost half of community college beginners had delayed entry and were enrolled part time; about one-third worked full time and were financially independent; and one-fifth had dependents.

College Involvement

There were also some differences in student involvement in college life, depending on the type of institution first attended. Community college students were less likely than other full-time students to participate in study groups, to speak with faculty outside of class, and to participate in school clubs. These differences can be seen in the data provided in Figure 11.

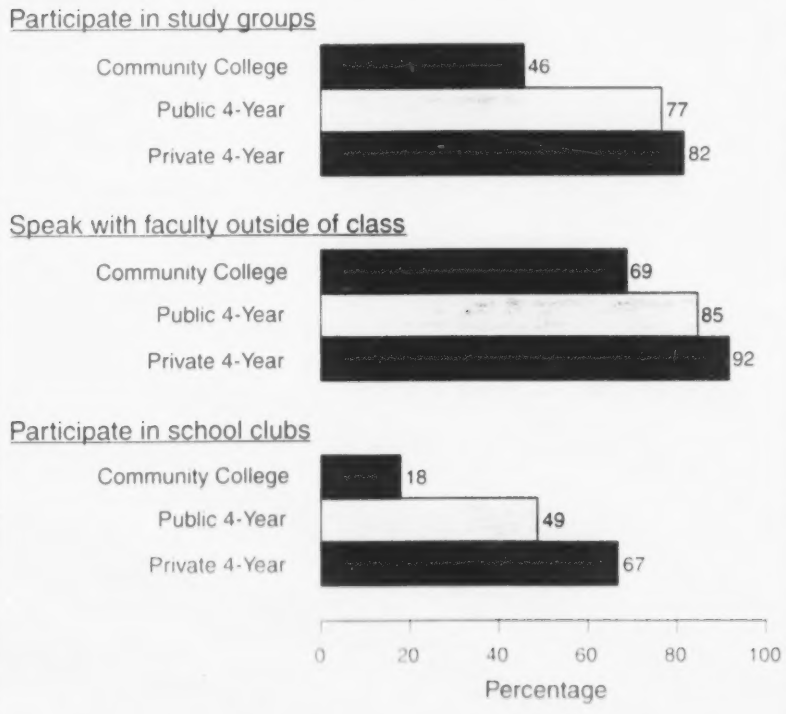
Figure 10
Percentage Distribution of Risk Factors* for 1995–96 Beginning Postsecondary Students, by Sector of First Institution Attended



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

*Factors negatively associated with persistence and attainment.

Figure 11
Percentage Distribution of 1995–96 Beginning Postsecondary Students, by School Activity and Sector of First Institution Attended



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Community College Programs

The mission of community colleges, as described in the AACC's *The Community College Story*, is to provide access to postsecondary educational programs and services that lead to stronger, more vital communities. The way individual community colleges achieve this mission may differ considerably. Some colleges emphasize college transfer programs; others emphasize technical education. The mission of offering courses, programs, training, and other educational services, however, is essentially the same for all community colleges. Five general categories of programs, activities, and services are offered and are described below. Some programs culminate in the award of an associate degree or some type of certification.[14] Table 1 lists the number of community college associate degrees conferred in 1997, broken out by the major field of study. Degrees in the liberal arts, general studies, and humanities are, by far, the most prevalent.

The following section is intended to provide a brief summary of the community college mission. Those interested in more detail on this topic should contact the resource groups listed in the appendix to this report or consult a general reference text on community colleges, such as Cohen and Brawer's *The American Community College*, which is cited elsewhere in this report.

Table 1
Community College Associate Degrees Conferred, by Major Field of Study, 1996–97

Liberal/general studies and humanities	167,448
Health professions and related sciences	76,848
Business management/administrative services	71,766
Engineering-related technologies	20,208
Protective services	17,745
Mechanics and repairers	9,747
Education	9,687
Visual and performing arts	8,757
Multi/interdisciplinary studies	8,246
Computer and information services	7,701
Vocational home economics	7,152
Precision production trades	6,123
Law and legal studies	6,121
Marketing and distribution	4,721
Public administration and services	3,899
Social sciences and history	3,687
Agricultural business and production	3,537
Personal and miscellaneous services	2,470
Biological sciences	2,046
Engineering	1,659
Physical sciences	1,658
Communications technologies	1,615
Communications	1,519
Construction trades	1,510
Psychology	1,440
English language and literature/letters	1,401
Conservation/natural resources renewal	1,246
Transportation/material moving	1,160
Home economics	895
Parks, recreation, leisure, and fitness	852
Mathematics	765
Science technologies	743
Agricultural sciences	688
Military technologies	554
Foreign languages/literature	484
Architecture and related programs	252
Undesignated field	219
Library science	124
Area, ethnic, and cultural studies	75
Philosophy and religion	42
Theological studies/religious vocations	7
TOTAL	456,508

Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

[14] These five categories are drawn from Vaughan, 2000, and do not represent the entirety of the programs that community colleges provide. For example, dual admissions programs allow high school students to enroll simultaneously in community colleges to earn college credits. AACC reports that 207,000 students were enrolled in these programs in 1997.

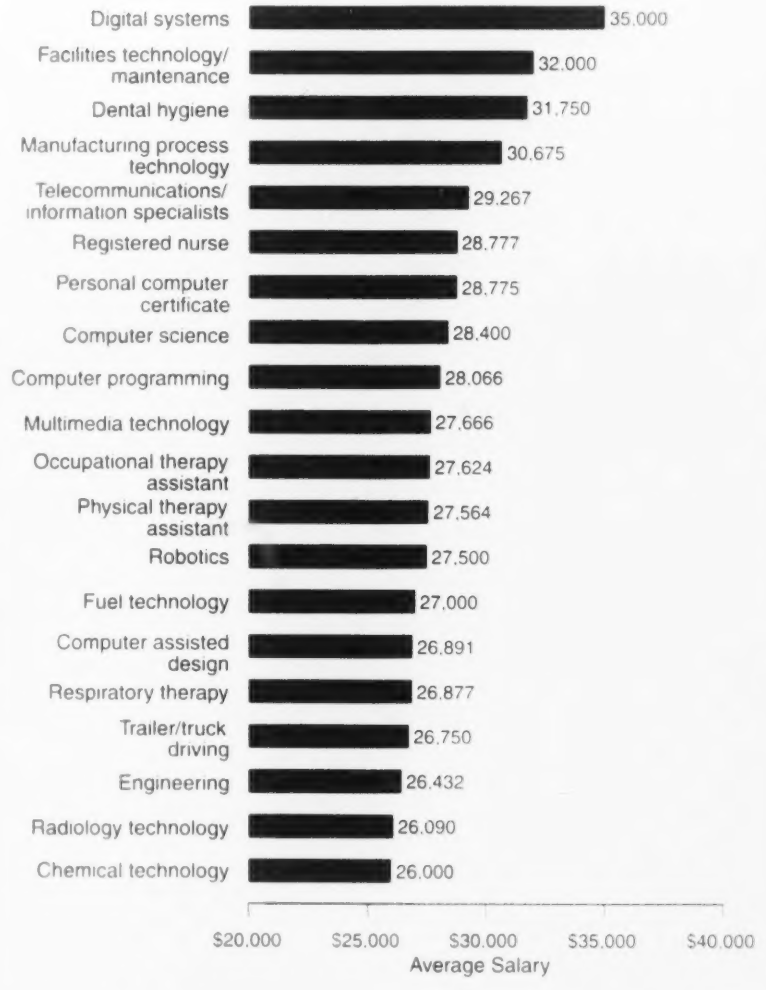
College Transfer Programs

Most of the nation's community colleges offer transfer programs in which students can complete the first two years of college at a community college and then transfer to a four-year institution. Students enrolled in transfer programs take courses almost identical to those they would take in a bachelor's degree program at a four-year college or university. Most of the courses are in the humanities, mathematics, sciences, and social sciences, and most transfer programs result in an associate degree. Transfer policies can vary widely across schools and are discussed later in this report.

Occupational/Technical Programs

A mainstay of community colleges, occupational/technical programs are flourishing today to keep pace with the changing skills needed in the workplace. Once limited to teacher training, office skills, and agricultural training, today's programs include curriculums as diverse as early childhood education, office management, laser optics, medical and computer technologies, auto body repair, and fire science. Figure 12 shows the 20 programs that community college administrators considered "hot" at their campuses and the average starting salary for each. Technology and health care programs are "hot."

Figure 12
Community College "Hot" Programs and Average Salary, 1997



Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

*Based on administrators' impressions of what programs were "hot" at their colleges and reported starting salary of graduates.

Developmental Education

Sometimes called compensatory education or remedial education, developmental education courses are designed to prepare students to enter college courses. The need for such help may be due to family background factors, poor prior educational preparation, a learning disability, language barriers, a long respite from formal education, or the need to prepare for a new career or job. Developmental education is a crucial part of the community colleges' commitment to access, student success, and serving the community.

Community Services

Community colleges, as is implied by their label, must serve the needs of the community in which they reside. Sometimes referred to as continuing education, community service programs are the most flexible and broad area of community college offerings. Often paid for by the individual rather than by tax dollars, courses can range from hobby courses or automobile mechanics to training in computers or emergency medical treatment. The business community more and more looks to community colleges to provide skills training for workers and frequently contracts with the colleges to provide that training.

Support Services

Finally, since community colleges are usually open-admission institutions, they have an ethical responsibility to help their students be successful. Students frequently require a variety of support services, including learning resource centers; academic, personal, and career counseling; information on financial aid and transfer programs; and writing programs.

Transfer and Articulation

One of the many educational purposes served by community colleges is to provide a lower-cost way for students to complete lower-division requirements before transferring to a four-year institution to complete a degree. And while this is but one of many community college functions, it is one on which they have been frequently criticized. This section of the report examines some recently available data on student transfer and provides a brief overview of articulation.

The Transfer Function

Some past research focussing on the success of community colleges in providing students an alternative route to the bachelor's degree has charged that the "community college is in crisis."[15] Dougherty concluded that:

> *Baccalaureate aspirants are less likely to succeed if they enter a community college rather than a four-year college. This baccalaureate gap is only partially explained by the different characteristics of the two student bodies. It also arises from different institutional characteristics of the community college that produce lower rates of persistence in the lower division, of transfer to the upper division, and of persistence in the upper division than is the case for four-year colleges.*

Dougherty's review points out that this finding is particularly distressing, since the community college has become the main gateway into higher education for many minority and working-class students.

Another comprehensive review of the research on postsecondary opportunity provides somewhat of a different view.[16] While the review finds that beginning at a community college lessens a student's chances of attaining a baccalaureate degree, it also concludes that for students who are socially and academically advantaged enough to attend four-year schools, community colleges may be less-expensive yet successful alternatives to attaining their bachelor's degrees. This review also cites research that found that community college students who subsequently transferred to four-year colleges and students who entered four-year colleges directly from high school had an equal probability of attaining bachelor's degrees.[17]

Much of the criticism aimed at community colleges focuses on the alleged tracking of students away from baccalaureate degrees, often referred to as "cooling out." The charge is that the whole community college environment — faculty, peers, curriculum, and so forth — combines to lower students' educational aspirations and plans (the "diverted dream").[18] This is a particularly pernicious charge, since many of the affected students are from minority and disadvantaged backgrounds.

On the other hand, it has been suggested that differences in the clarity or certainty of plans between two- and four-year college students may be playing a role here. As pointed out earlier in this report, some researchers offer the possibility that many community college students may have unclear or undeveloped plans to begin with. For these students the community college experience may provide a relatively low-cost opportunity to explore postsecondary education options and give them a

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[15] Kevin J. Dougherty, "The Community College at the Crossroads: The Need for Structural Reform," *Harvard Educational Review*, 61 (3), August 1991.

[16] Therese L. Baker and William Velez, "Access to and Opportunity in Postsecondary Education in the United States: A Review," *Sociology of Education*, Extra issue, 1996.

[17] Valerie E. Lee, Christopher Mackie-Lewis, and Helen M. Marks, "Persistence to the Baccalaureate Degree for Students Who Transfer from Community College," *American Journal of Education*, 102, 1993.

[18] See, for example, Brint and Karabel, 1989.

chance to clarify their career and educational plans.[19]

Thus, trying to judge the effectiveness of community colleges in facilitating their students' transfer to four-year schools is complicated by definitional and methodological problems. Fortunately, a new database is available that overcomes some of these problems. The Beginning Postsecondary Students Longitudinal Study, conducted by the National Center for Education Statistics of the U.S. Department of Education, provides nationally representative, longitudinal data on students who entered college in 1989–90 and followed them through academic year 1993–94. This section of the report uses these data to discuss the transfer behaviors of beginning community college students.[20]

So where do students who begin their higher education studies in community colleges end up? First, it's important to remember that less than 20 percent of all postsecondary students meet Harold Hodgkinson's definition of "Joe College" — students from 18 to 22 years of age who are living in college housing and going to college full time. Second, nearly half of those students who started college in 1989 had enrolled at more than one institution by 1994 — 33 percent attended two institutions and 12 percent attended three or more schools.[21] (For an analysis of this "swirling" in and out of higher education institutions and the variables that contribute to persistence in attaining a bachelor's degree, see Clifford Adelman, *Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*, U.S. Department of Education, June 1999.)

Objective at Enrollment. A well-known problem in calculating transfer rates from community colleges is figuring out how to differentiate students who intend to transfer from those who do not. The data used here have the advantage that base-year students were asked their degree intention at the time of enrollment. Of the beginning community college students surveyed in the NCES study, 25 percent said that they were aiming to attain a bachelor's degree. (This rate may be understated, since some articulation agreements focus on completing an associate degree. Therefore, some students who intend to transfer might say that they are aiming for an associate degree.) Fifty-four percent said they were working toward an associate degree, 13 percent toward a certificate, and 7 percent said they were not working toward a degree.

As shown in Figure 13, some community college beginners were more likely than others to identify themselves as prospective transfer students. Male students and younger students (under age 20) were more likely to be potential transfers. High socioeconomic status community college students were also more likely to intend to transfer. Figure 13 also shows that about one-third of Hispanic community college students indicated a desire to transfer. While this difference between Hispanic and White and Black students is not statistically significant, this large percentage is indicative of Hispanic students' heavy reliance on community colleges as a point of entry into higher education.

Transfer to Four-Year Institutions. Twenty-two percent of all community college beginners transferred to four-year institutions within five years of entering community college. The transfer percentage was much higher (39 percent), however, for those students who said that they intended to transfer (degree objective was a bachelor's degree or higher). Another 6 percent of

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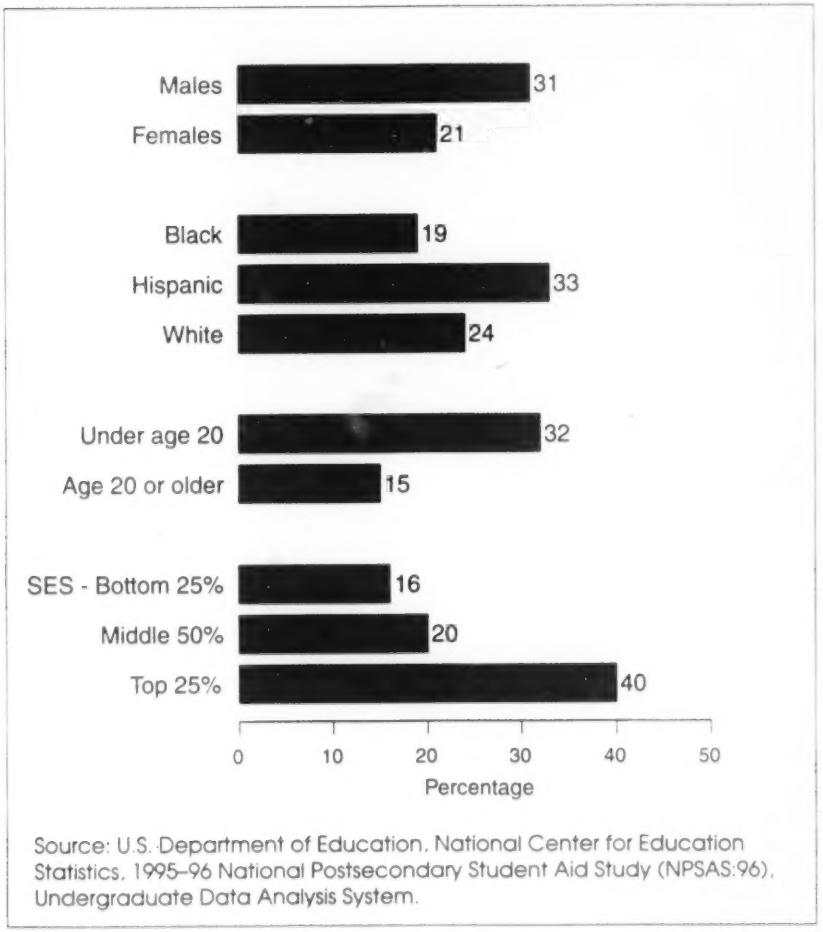
[19] Pascarella, 1999.

[20] Alexander C. McCormick and C. Dennis Carroll, *Transfer Behavior Among Beginning Postsecondary Students: 1989–94*, U.S. Department of Education, National Center for Education Statistics, June 1997.

[21] U.S. Department of Education, National Center for Education Statistics, 1989–90 Postsecondary Students Longitudinal Study, Second Followup (BPS:90/94), Data Analysis System.

Figure 13
Percentage of 1989–90 Beginning Community College Students Who Planned to Earn a Bachelor's Degree or Higher



Source: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

these potential transfers entered a four-year school after an intermediate transfer to another sub-baccalaureate school. In addition, 23 percent of community college starters who were aiming for an associate degree transferred to a four-year college. (This supports the notion that many students pursuing associate degrees actually plan to transfer.) Thus, a reasonable estimate is that somewhere between one-quarter and one-half of beginning community college students who have plans for some type of degree eventually transfer to a four-year school.

Full-time prospective transfer students (students working toward a bachelor's degree) were twice as likely as part-time potential transfer students to transfer. Half of these students transferred. Prospective transfer students who expected to complete an advanced degree also transferred at a higher rate than prospective transfers who expected a bachelor's degree to be their highest educational attainment.

Sixty-five percent of community college students who transferred to a four-year institution did not complete a degree before transferring, 34 percent completed an associate degree, and less than 1 percent obtained a certificate. Students aiming for an associate degree were more likely than students aiming for a bachelor's degree to attain an associate degree before transferring. Transferring students who were enrolled full-time during their first year were also more likely than part-timers to obtain an associate degree before transferring.

Community college beginners who transferred to four-year schools spent about 20 months at the community college, on average. This is similar to the time normally required for students to complete lower-level coursework at four-year institutions. Community college students who completed an associate degree spent more time at the community college than students who transferred without obtaining any credential.

Community college beginners who transferred to four-year institutions took an average of 21 months off between institutions. About one-third transferred within one year and about one-quarter took more than three years off.

Bachelor's Degree Attainment. The bottom line is that 26 percent of transfer students who entered community college in 1989 obtained a bachelor's degree by 1994. In addition, 44 percent were still enrolled in a four-year school at that time. This adds up to an overall persistence rate of 70 percent. This rate is equivalent to the persistence rate of students who begin at four-year schools or transfer between or among four-year schools (horizontal transfers).[22]

In summary, about 40 percent of prospective transfers were successful in transferring to a four-year school and persisted in college about as well as students who began at a four-year school.[23]

Prospective transfer students who completed an associate degree at a community college before transferring had a much higher bachelor's degree attainment rate than their classmates who transferred without any credential. This may be explained by the fact that associate degree completers were more likely to transfer credits, which would accelerate degree completion.

Students who transferred with an associate degree may have been better prepared for the transition, or they may have encountered fewer obstacles along the path.

Finally, a more sophisticated analysis of the data (regression analysis) by NCES revealed that enrollment status was the most important factor in transfer behavior. The likelihood of transfer was nearly twice as high for students enrolled full time in the first year than for part-time students of comparable gender, age, socioeconomic status, educational expectations, and degree goals.

NCES suggests that administrators and policymakers concerned with the transfer function should devote special attention to the needs of part-time students who make up the majority of community college students. These needs include access to transfer-oriented classes and counseling that accommodate work schedules, and access to faculty outside of class.

Articulation

The most pervasive and long-lived issue in community colleges is the extent to which their courses are accepted by the universities. Articulation agreements (sometimes written into state education codes), interinstitutional standing committees, and policy statements that date from the earliest years of the community colleges to the most recent — all attest to the importance of transferability.

Cohen and Brawer define "articulation" as the movement of students — or, more precisely, the students' academic credits — from one point to another. Articulation is not a linear sequencing or progression from one point to another. It covers students going from high school to college; from two-year colleges to universities and vise versa; double-reverse transfer students, who go from the two-year college to the university and then back again; and people seeking credit for experiential learning as a basis for college and university credit. The concept includes admission, exclusion, readmission, advising, counseling, planning, curriculum, and course and credit evaluation. More recently, rather than following a linear progression through higher education institutions, students have tended to "swirl," dropping in and out of community colleges and universities, taking courses in both types of institutions at the same time, and transferring frequently between the two.[24]

This fluidity complicates the matter of understanding articulation policy, which was traditionally a one-way street with the rules dictated by the four-year schools. Past research has found that in most cases, transfer negotiations are conducted between institutions, mostly on a case-by-case basis. Frequent problems include

[22] Research reported by Pascarella also suggests that students planning to earn a bachelor's degree who start out at community colleges are about 15 percent less likely to complete the degree in the same period of time as similar students who start at four-year institutions. One could argue, however, that student degree plans are often unclear or undeveloped and that students who actually transfer are the better measure of degree attainment.

[23] NCES points out, however, that beginners and horizontal transfers at four-year institutions had higher rates of bachelor's degree attainment.

[24] Cohen and Brawer, 1996.

deciding which courses would be accepted, students' access to their desired majors, and insistence by the four-year institution that they be the primary judge of whether to grant transfer credit.[25]

Cohen and Brawer go on to conclude that where formalized articulation agreements do exist, they are usually brought about through the intervention of state boards of education. Several states negotiate agreements on a common core of general education courses; these agreements must be renegotiated periodically. In an attempt to capture and describe this diversity, a Policy Paper prepared by the Education Commission of the States (ECS) notes the following:

- Since the 1960s, state involvement in articulation agreements has increased, but no single model as been pursued. Traditionally, agreements have been voluntary. Both Hawaii, where community colleges are part of the state university system, and California, where they are not, use agreements between the two- and four-year sectors.

- Florida, Georgia, Illinois, Massachusetts, Nevada, Rhode Island, South Carolina, and Texas have legislated policies that specify curriculums and examinations, including a common course-numbering system and/or a core general education curriculum.

- The Illinois Articulation Initiative is a recent state initiative to improve articulation. Students who take the specified package of coursework are assured their credits will satisfy the general education requirements at the institution to which they transfer.

- Dual admissions programs adopted by institutions in Ohio, New Jersey, and other states have the potential to increase the number of community college students who graduate with an associate degree.[26]

Dual admissions agreements are specialized transfer agreements that guarantee admission and transfer of credits to specific four-year colleges and universities. Mercer County Community College, for example, has dual admissions agreements with six New Jersey colleges. Each requires completion of a specified program and a minimum grade point average, which varies by institution and program. A description of these agreements and programs are provided in the appendix to this report as examples.

The ECS concludes that, to be effective, articulation policies and practices must involve a network of constituents from the state to the university to the community college to the high school. The ultimate test is getting community college students (who desire a degree) successfully through to the university. State directives, though necessary and important, may be limited in their effect and difficult to carry out. On the other hand, state-encouraged and state-supported actions instituted at the system or institutional level may prove more effective overall. Some of the options include:

- Streamline articulation — make community colleges and four-year colleges partners in establishing policies, and integrate the articulation system into the state higher education system.

- Promote collaboration among high schools and two- and four-year institutions.

- Foster curriculum development by faculty at both levels of institutions.

- Bolster student support services, including counseling and financial aid.

- Build technical support for student information systems.

- Provide for research and evaluation on the effectiveness of transfer and articulation.[27]

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[25] Cohen and Brawer, 1996.

[26] Tronie Rifkin, *Improving Articulation Policy to Increase Transfer*, ECS Policy Paper, Education Commission of the States, September 1998.

[27] Rifkin, 1998.

Examining the Impact and Effectiveness of the Community College

This report has reviewed some of the data that attest to the importance of the role the community college plays in the higher education system. Until recently, however, there was limited information or data available on the effectiveness of these institutions. In a recent issue of *Community College Journal*, Ernest T. Pascarella provides a succinct summary of the small but steadily growing body of evidence on the impact community colleges have on students. His analysis suggests that the evidence is more complex than has been realized, and is summarized below.

- There is some evidence, although hotly debated, that community college attendance has a dampening effect on attaining a bachelor's degree.
- Evidence suggests that when community college students transfer to four-year colleges and complete their bachelor's degrees, they are about as competitive in the labor market as similar students who start at four-year colleges.
- Evidence suggests that community colleges may have cognitive and developmental effects on their students similar to the effects that four-year colleges have on their students.
- Community college attendance can give some students a chance to transfer into schools that are more selective than the schools they could have enrolled in directly from high school. This is particularly true for low-income students who did not perform well in high school.
- Community college degrees or credentials, in and of themselves, provide substantial economic advantages over a high school degree.
- Since community colleges are considerably less expensive than four-year colleges, they can provide a more affordable way for substantial numbers of students to obtain the first two years of postsecondary education, with little differential effect on their intellectual development or competitiveness in the market place.

Pascarella concludes that the available body of evidence supports neither the critics nor the ardent supporters of the community college system. As with the results of much social science research, the reality appears to fall somewhere in between the views espoused by each side.[28]

Another comprehensive review of the research evidence also provides support for the community college mission. This research synthesis, conducted by the National Library of Education, found that community colleges were a more effective alternative than four-year colleges for many students. The report concluded that high school students of modest ability or uncertain motivation who are thinking of enrolling in a four-year college, especially in a liberal arts major, would be well advised to instead consider enrolling in a community college or occupational training program such as those offered by the military. A lower-achieving high school graduate who chooses one of these options would reduce his or her (already low) chances of getting a bachelor's degree but would probably realize the same cognitive development gains and the same or greater earnings at less cost and with less debt.[29]

The next section of this report takes a look at some of the issues that community colleges will face as the new century unfolds. It includes information on demographic trends and on the future educational requirements of jobs.

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[28] Pascarella, 1999.

[29] David Boesel and Eric Fredland, *College for All? Is There Too Much Emphasis on Getting a 4-Year College Degree?* U.S. Department of Education, National Library of Education, January 1999.

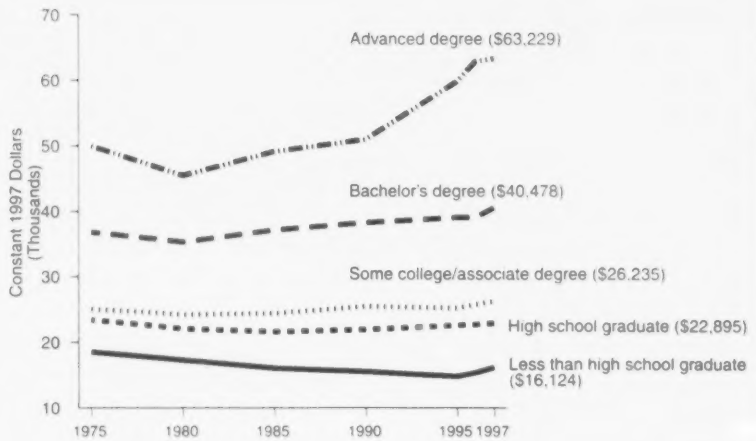
A Look Ahead

The demand for community college education and training in the years ahead will likely increase both for demographic and economic reasons. The post-industrial workforce, with its emphasis on adaptable skills, problem-solving ability, and technological savvy, will have education and training requirements that match up well with the strengths of the modern community college. This section of the report examines some data that demonstrate these demands.

Anthony Carnevale has outlined five crucial roles that community colleges will play in the new economy and in the new multicultural America:

- The minimum educational qualification for access to good jobs
- The stepping stone to bachelor's and graduate degrees
- The pivotal education institution in the nation's job training and retraining system
- The primary education provider for the least advantaged
- The first chance at American higher education for the surging immigrant population[30]

Figure 14
Average Annual Earnings (in 1977 Dollars) by Educational Attainment, 1975 to 1997



Source: Kent A. Phillippe and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*, 3d edition, Washington, D.C.: Community College Press, American Association of Community Colleges, 2000.

According to Carnevale, the "baby boom echo" of traditional-age college students is expected to peak at 16 million in 2015, an increase of about 3 million students over 1995 levels. The largest growth in this cohort will come from students from racial and ethnic minorities. The number of African American undergraduates will grow to 2.1 million, an increase of 23 percent over 1995 levels. Undergraduate participation by Asian American and Hispanic students will grow even faster, with growth rates of almost 50 percent and 73 percent, respectively. Community colleges have traditionally been a starting point for postsecondary education and training for many minority students, and this will likely continue.

Another reason for the sustained importance of community colleges in the future is the widespread recognition that postsecondary education is strongly associated with income. Figure 14 shows the average annual earnings for the past 20 years, expressed in constant 1997 dollars, for individuals grouped by educational level. The relationship is strong and clear — on average, individuals with more education make more money. In 1997, individuals

[30] Anthony P. Carnevale, *Community Colleges and Career Qualifications*, New Expeditions White Paper, *www.aacc.nche.edu/initiatives/newexpeditions/White_Papers/marketwhite.htm.*

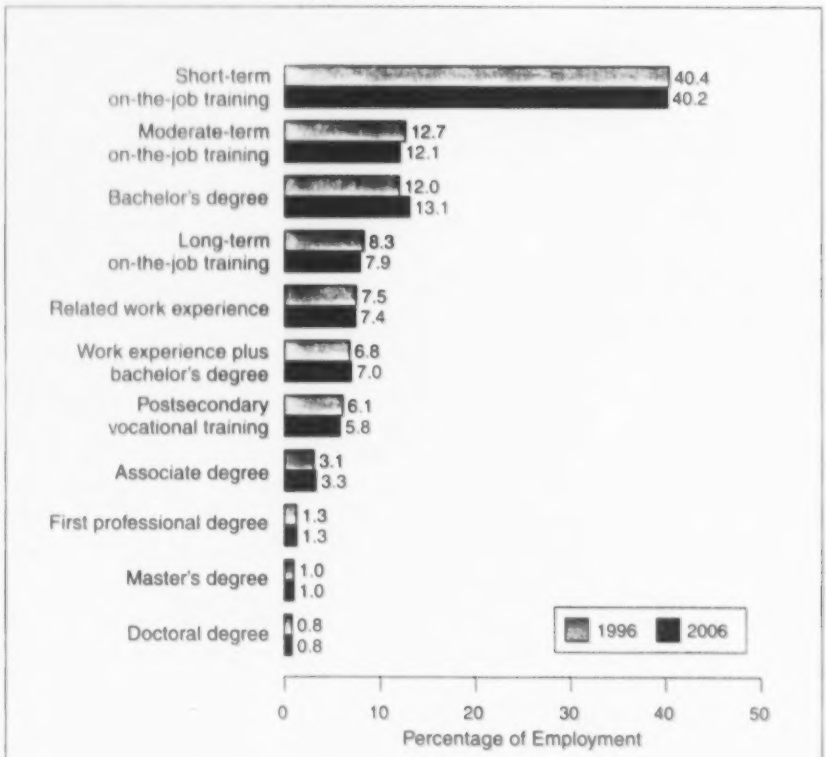
with a bachelor's degree earned an average of $40,478, compared to $26,235 for individuals with some college or an associate degree, $22,895 for high school graduates, and $16,124 for individuals with less than a high school diploma.

In addition to providing well-paying jobs in technology and health-care fields, community colleges provide the initial higher education for those going on to attain bachelor's and advanced degrees. It's also noteworthy, in looking at Figure 14, that the income lines for individuals without any college education are flat or falling. It's quite possible that these differences will widen in the future, increasing the importance of obtaining education beyond high school.

In addition, based on several analyses, Ernest Pascarella found that men with an associate degree had an average advantage of about 18 percent over the annual earnings of men with a high school diploma. For women the effects were greater — about 26 percent. Evidence also suggests that there is a greater economic return to completing a specific coherent program of study (obtaining an associate degree or credential) than in taking two years' worth of community college courses without completing a credential.[31]

Another key set of information relevant to assessing the future importance of the community college system pertains to the educational requirements of jobs and how these educational requirements may change in the future. Figures 15, 16, and 17 summarize data that get at this issue. These data are collected by the Bureau of Labor Statistics and include the change in employment trends between 1996 and 2006 and the number of total job openings occurring between these two time periods.[32] This latter measure, in addition to measuring employment growth, measures the need to

Figure 15
Percentage Distribution of Employment by Education and Training Category, 1996 and 2006

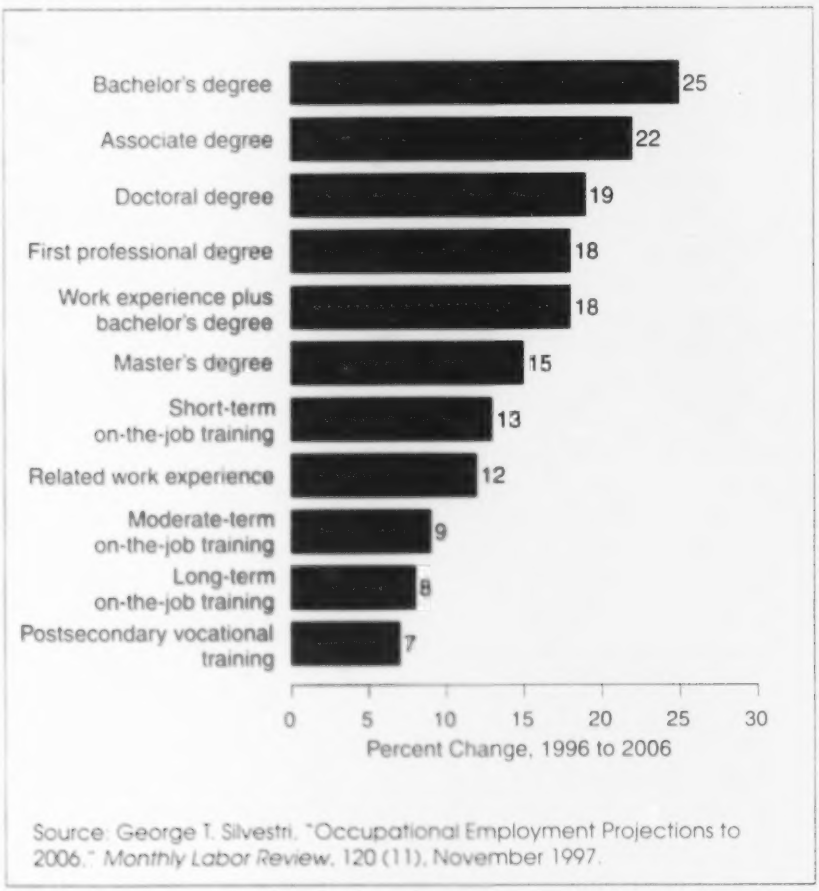


Source: George T. Silvestri, "Occupational Employment Projections to 2006," *Monthly Labor Review*, 120 (11), November 1997.

[31] Pascarella, 1999.

[32] The data discussed in this section on the educational requirements of jobs are from George T. Silvestri, "Occupational Employment Projections to 2006," *Monthly Labor Review*, 120 (11), November 1997.

Figure 16
Percentage Change in Employment, 1996 to 2006, by Education and Training Category



Source: George T. Silvestri, "Occupational Employment Projections to 2006," *Monthly Labor Review*, 120 (11), November 1997.

replace workers who leave their jobs to enter other occupations, retire, or leave the labor force for other reasons.[33]

It's important to recognize that there are several ways to look at this issue. Figure 15 shows the distribution of jobs in 1996 and 2006 by the education and training required. Two points are apparent. First, the distribution of employment by education and training category changes very little between 1996 and 2006. Second, an overwhelming proportion of jobs requires less than a college degree. Only about three out of 10 jobs in 1996 required any postsecondary training. The largest education and training category is short-term on-the-job training, in which workers can learn job skills in a few weeks or less. Accounting for 40 percent of employment, the most common occupations in this category are operators, fabricators, and laborers; and administrative support occupations, including clerical. These workers had the lowest average wages of all the groups. By this measure, at least, most jobs don't require any postsecondary education.

If we look at where the jobs are growing, however, the picture changes. Figure 16 shows the percent change in employment between 1996 and 2006 by the same education and training categories. As shown, the largest increase in employment (25 percent) will be in jobs that require a bachelor's degree, followed closely by jobs that require other higher education, including associate degrees (22 percent growth). All of the jobs requiring at least an associate degree are projected to grow faster than average over this 10-year period, and also to grow faster than jobs requiring less education and training. About half of the fastest-growing jobs required more than a high school education, and the top three require at least a bachelor's degree — database administrators, computer support specialists, and all other computer scientists;

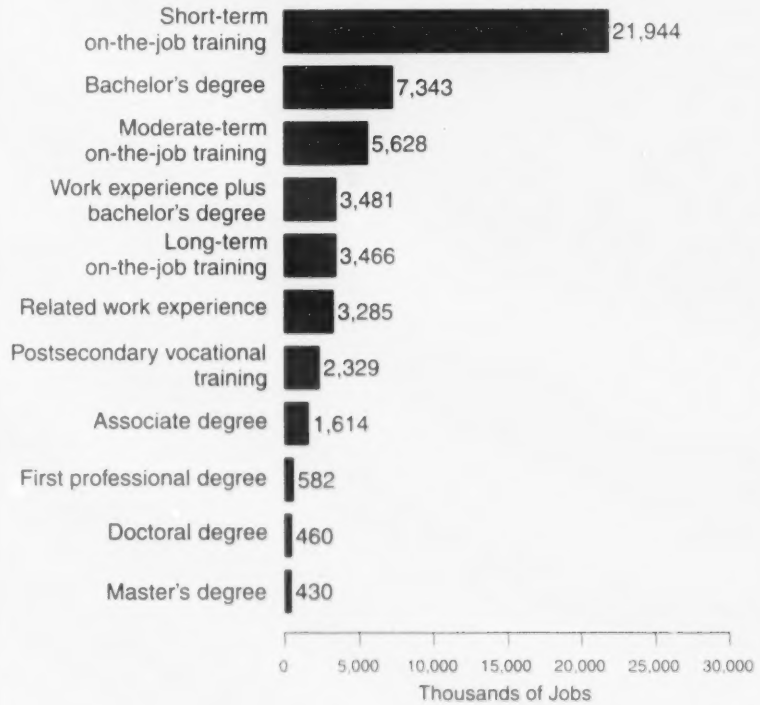
[33] For more in-depth information on the educational requirement of jobs, see Paul E. Barton, *What Jobs Require: Literacy, Education, and Training, 1940 – 2006*, Policy Information Report, Policy Information Center, Educational Testing Service, January 2000.

computer engineers; and systems analysts.

Finally, Figure 17 looks at total job openings between 1996 and 2006. This measure recognizes both employment growth and net replacement needs. The most growth is in jobs requiring short-term on-the-job training, accounting for 22 million job openings. Next are jobs requiring a bachelor's degree, accounting for 7.3 million jobs. When we total up the jobs requiring at least some post-secondary education or training we come up with a little over 16 million jobs, or about one-third of all job openings.

When we factor the wage differentials for jobs by education and training categories into the data described above, we can reach several conclusions. First, while the economy is producing (and will continue to produce) many jobs that don't require any post-secondary education, those jobs are at the bottom of the earnings ladder. In addition, those jobs are growing slower than jobs that require more education. While employers will continue to require employees with all levels of education and training, those with the most education and experience will do better in the job market, both in terms of career options and pay.

Figure 17
Total Job Openings Due to Growth and Net Replacements, 1996 to 2006, by Education and Training Category



Source: George T. Silvestri, "Occupational Employment Projections to 2006," *Monthly Labor Review*, 120 (11), November 1997.

Conclusions

The community college plays a large and important role in the country's system of higher education, especially for the more disadvantaged portions of American society. Community college programs span a wide range of functions and fields, providing the first two years of college to potential college graduates, occupational training to aspiring workers, economic development activities to communities, workforce training and retraining for corporations, and educational recreation to many citizens.

While community colleges historically have been criticized on a number of fronts, many successful college graduates have community college credits on their transcripts, and many workers reap the economic benefit of an associate degree or occupational training program.

Unfortunately, many graduating high school students come to the community college door unprepared for college. On one hand, community colleges allow students a "second chance." As a result, much community college curriculum is remedial in nature. On the other hand, the availability of such a "second chance" sends the wrong message to students — many believe that they can attain their goals for higher education without doing any work in high school. It is clear that our educational system needs better alignment and articulation, kindergarten through college. Each part of the system needs to do a better job of informing students of what is required and expected of them. Efforts like "tech-prep" and "2+2" programs that blend high school and college are examples of approaches that allow students to see the relevance of their studies to the world of work.

As the community college system turns 100, demographic and economic trends would appear likely to increase its vigor. A new wave of youth, many from racially and ethnically diverse backgrounds, as well as many from foreign shores, offer an expanding base of potential clients. As "democracy's colleges," their policy of open access will provide continued opportunity to those who wish to take advantage of it.

The widely recognized economic benefit of education beyond high school will also work to the advantage of the community college. Along with providing the first two years of college, its tradition as a provider of workforce training in growing fields like information technology and health care services will continue to be important.

Of course, we are entering a time of rapid change in the way that education is delivered, especially to nontraditional learners. On the cautionary side, community college leaders are recognizing challenges from outside the system to redesign community colleges so they can move with, and ahead of, change. A paper prepared for the New Expeditions Project (described in the next section of this report) by Richard Alfred and Patricia Carter considers four pervasive forces at work inside and outside community colleges that must be addressed. These include students with changing needs and expectations, new competitors, evolving technology, and the drive for performance and accountability.[34]

While its place in the history of American higher education is assured, the future success of the community college system will depend on how it adapts to the changing needs of society. If history is any indication, community colleges will adapt and thrive.

Cohen and Brawer provide a fitting close.

> *Perhaps community colleges should merely be described as untraditional. They do not follow the tradition of higher education as it developed from the colonial colleges*

[34] See Richard Alfred and Patricia Carter, *Contradictory Colleges: Thriving in an Era of Continuous Change*, paper prepared for the New Expeditions Project, *http://www.acce.nche.edu/initiatives/newexpeditions/White_Papers/marketwhite.htm*.

through the universities. They do not typically provide the students with new value structures, as residential liberal arts colleges aspire to do. Nor do they further the frontiers of knowledge through scholarship and research training, as in the finest traditions of the universities. Community colleges do not even follow their own traditions. They change frequently, seeking new programs and new clients. Community colleges are indeed untraditional, but they are truly American because, at their best, they represent the United States at its best. Never satisfied with resting on what has been done before, they try new approaches to old problems. They maintain open channels for individuals, enhancing the social mobility that has characterized America; and they accept the idea that society can be better, just as individuals can better their lot within it.[35]

35 Cohen and Brawer, 1996.

Resources on Community Colleges

ERIC Clearinghouse on Community Colleges
http://www.gseis.ucla.edu/ERIC/eric.html
University of California, Los Angeles
3051 Moore Hall
Box 951521
Los Angeles, CA 90095-1521
(800) 832-8256
(310) 825-3931
(310) 825-8095 (fax)

The American Association of Community Colleges (AACC)
www.aacc.nche.edu
One Dupont Circle, NW, Suite 410
Washington, D.C. 20036
(202) 728-0200
(202) 833-2467 (fax)

AACC 1998-99 Research Agenda

This agenda addresses five issues considered most important to community college research — technology, workforce training, faculty and staff development, collegiate education, and institutional finance and cost. The elements of access, learning process, and outcomes/value-added should be considered for each issue. More detail on this agenda can be found on AACC's Web site.

The Center for Community College Policy
In July 1999, the U.S. Department of Education announced a grant to the Education Commission of the States (ECS) to establish the Center for Community College Policy. This center will focus on effective community college policies and practices. The center will be the first in the nation to target community college public policy issues that are the focus of state and national policymakers, including:

- Providing access for an increasing number of students seeking postsecondary education
- Containing costs for postsecondary education
- Effectively training displaced workers
- Training people coming off welfare
- Providing additional training for teachers
- Providing leadership for state and community economic development efforts[36]

[36] For more information, visit *www.ecs.org* or contact Katherine Boswell, project director, at 303–299–3645.

New Expeditions
New Expeditions aims to set a vision and strategic direction for the nation's community colleges in the first part of the next century. Relying on input from the field and critical analysis of trends, the project will culminate in a visionary report to challenge the colleges through a series of recommendations for action. The project will examine an array of issues, including governance, funding, open access and equity, technology, faculty roles, leadership development, service to students and communities, and the role of community colleges in improving the quality of civic life.

Launched in April 1998, this 21-month project is sponsored by the American Association of Community Colleges (AACC) and the Association of Community College Trustees (ACCT), with funding from the W. K. Kellogg Foundation. For more information, including commissioned papers, visit *www.aacc.nche.edu/initiatives/newexpeditions.*

The ERIC Clearinghouse on Community Colleges at UCLA has prepared a series of bibliographies for New Expeditions. The areas covered are:

- Access, diversity, and inclusion
- Civil society
- Teaching and learning
- Faculty
- Technology
- Governance
- Leadership
- Finance
- Market forces
- Change
- Future of community colleges

These can be ordered from ericcc@ucla.edu.

Community College Research Center
Institute on Education and the Economy
Teachers College, Columbia University
Box 174
525 West 120th Street
New York, NY 10027
212–678–3091

The Center has taken a broad and comprehensive view of community colleges, examining their fundamental purposes, problems, and performances. The Center's current studies include research on the roles of community colleges; workforce and economic development; curriculum, pedagogy, and articulation; and the economic returns of community colleges. *www.tc.columbia.edu/~iee/ccrc.*

Appendix
Mercer County Community College (New Jersey)
General Guidelines for Dual Admissions Programs

MCCC has dual admissions agreements with:

Montclair State University: Joint Admission Agreement

- Complete the Humanities and Social Science Program at MCCC
- Earn a cumulative GPA of 2.5 (or better)

New Jersey Institute of Technology: Joint Admission Agreement

- Complete one of the MCCC eligible programs: Architecture, Business Administration, Civil Engineering Technology, Computer Science, Electronics Engineering Technology, Engineering Science, and Surveying Engineering Technology
- Earn a cumulative GPA of 2.0 (or better)

Rider University: Guaranteed Transfer Agreement Program

- Complete one of the MCCC eligible programs: Most Mercer AA or AS programs as well as Radio and Television (AAS)
- Earn a cumulative GPA of 2.5 (or better)

Rutgers University: Dual Admission Program

- Complete one of the MCCC eligible programs: Art History, Chemistry (for a major in Biology, Chemistry, or Environmental Science at Rutgers), Computer Science, Engineering Science, Humanities and Social Science (for a major in any of the Liberal Arts or Business programs at Rutgers), Law Enforcement (for transfer to Rutgers Newark only), Mathematics, and Physics
- Earn a cumulative GPA of 3.2 (or better) (3.0 for Engineering)
- Earn all of your college credits at MCCC or Rutgers

(Students who have earned fewer than 12 non-matriculated transfer credits at another college may also be eligible to participate.)

The College of New Jersey: Student Transfer Agreement Program

- Complete one of the MCCC eligible programs: Art History, Biology, Business Administration, Chemistry, Communications (including Theater), Computer Science, Engineering Science, Humanities and Social Science, Law Enforcement (including Corrections), Mathematics, Physics, and Special Education

For students who have graduated high school within the past 5 years:

- Be a first time college student (Students who have previously attended MCCC or any other college are not eligible for the STAP.)
- Complete an STAP Intent to Transfer Application Form by the end of their first year for new admissions entering MCCC.
- Achieve a high school class rank in the top 50% OR earn a combined SAT score of 1125 or better or an equivalent ACT score. (Students who have earned a GED are not eligible for the STAP.)
- Earn a cumulative Grade Point Average (GPA) at MCCC of 3.2 or better. (The required GPA will vary depending on the specific major chosen at The College of New Jersey.)
- Be a resident of Mercer County or a graduate of an accredited high school in Mercer County.

Students who have graduated from high school more than 5 years ago are not required to present high school rank or SAT/ ACT scores, but are subject to all other eligibility criteria.

Thomas Edison State College: N.J. Baccalaureate Degree Completion Program

- Complete one of the MCCC eligible programs: Most Mercer programs
- Earn a cumulative GPA of 2.0 (or better)

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